

THE EXPERTS CHOICE

TITAN

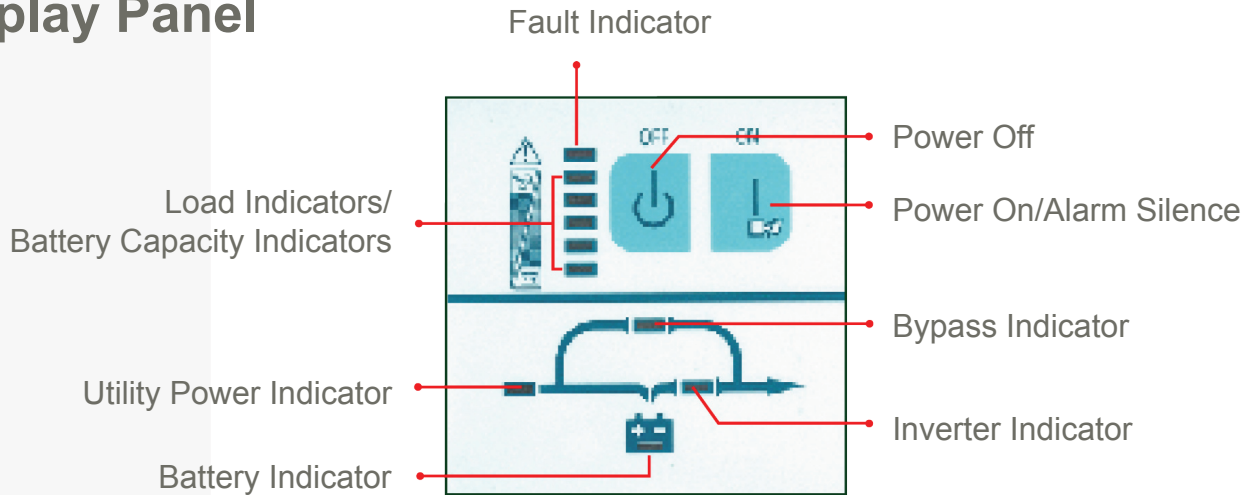
Powerful On-Line UPS

- Microprocessor kontrolleret garanterer høj pålidelighed.
- Stort input spændingsområde.
- Kommunikationsporte valgbar mellem: RS-232 eller intelligent slot til AS-400, og SNMP kort.
- Gratis software download fra internettet til monitorering af UPS status.
- Mulighed for udvidelse af backup tiden ved brug af ekstern batteribank.
- Fås i "S" version med ekstra kraftig lader når ekstern batteribank anvendes.
- Automatisk selvtest ved opstart.
- Fås i Tower og Rack design.



TITAN POWERFUL ON-LINE UPS

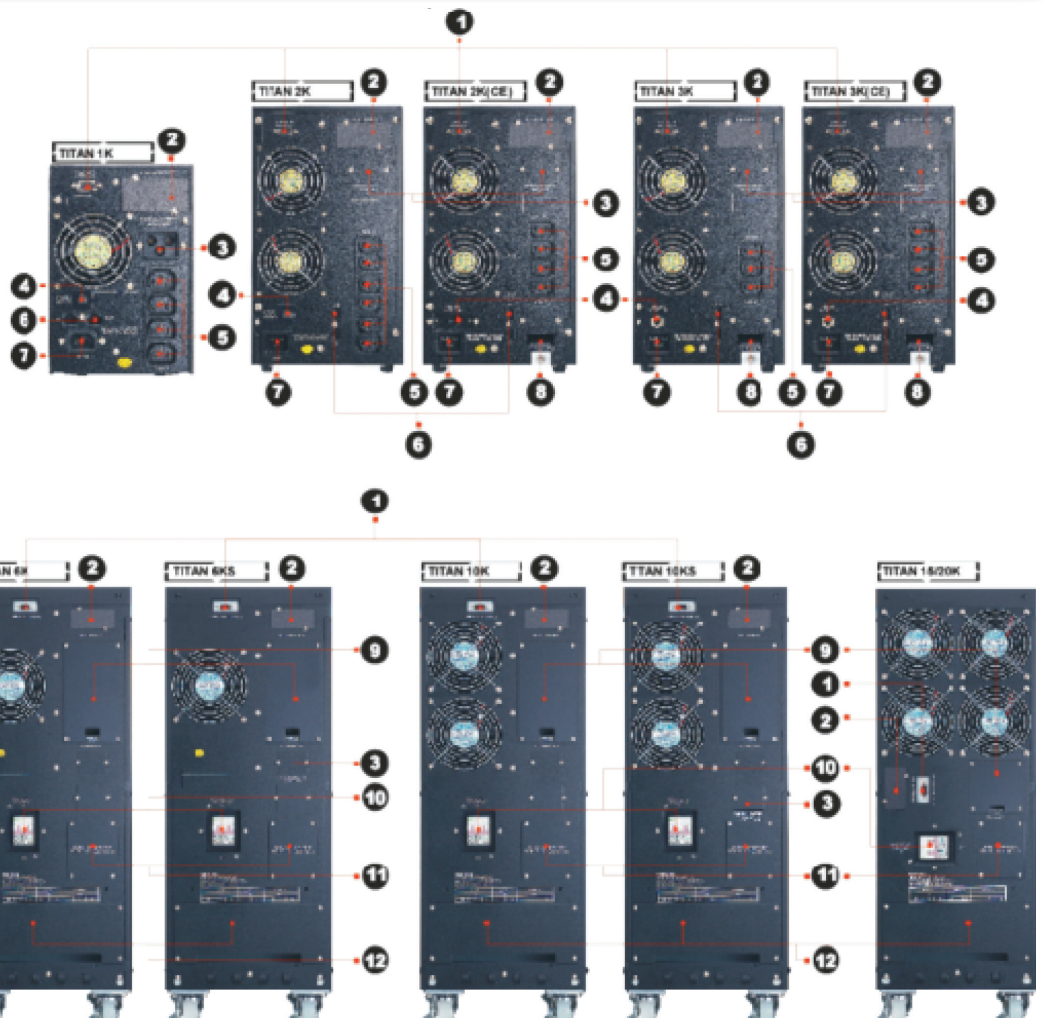
Display Panel



Back Panel

Back Panel for all models

- | | |
|---|--------------------------|
| 1. Communication Port | 7. Input Socket |
| 2. Intelligent Slot | 8. Output Terminal Block |
| 3. External Battery Socket (For S model ONLY) | 9. Parallel Port |
| 4. Breaker | 10. Input Breaker |
| 5. Output Socket | 11. Maintenance Switch |
| 6. Network / Fax / Modem Surge Protection | 12. Terminal |



TITAN POWERFUL ON-LINE UPS

Titan Series UPS make use of the unique AC-DC conversion circuitry to detect the electricity current and voltage output of utility power supply. The current is input via the high frequency PWM to maintain uniform wave form and phase in line with the voltage, so as to attain high input power factor over 95% and avoid generating comparatively significant harmonic interference on the power network.

With the use of the outstanding IGBT as the power conversation component, the operating frequency of the Inverter of UPS is capable of reaching tens of KHz, due to the high frequency operating characteristics of IGBT. Higher working efficiency of the inverter also improves the overall efficiency of UPS. Moreover, higher inversion frequency reduces the noise of the inverter as well.

TITAN RACK

Microprocessor Control:

By means of innovative software control programs, the complicated hardware circuitry is inlaid in the powerful microprocessor. Apart from reduced size, it also lowers the defective rate of UPS.

Communication Ports:

Offering three different communication ports for user selection:

RS-232, SNMP slot and AS-400 slot. Through either one of them, the user can control and monitor UPS status easily.

Extended Backup Time:

Long Backup Models are allowed to connect external batteries to get prolonged backup time. It is particularly suitable for use in areas where power supply is consistently in shortage.



Cold Start Function:

The unique Cold Start Function elaborates the emergency standby capability of UPS to a sufficient extent.

Auto Self-Testing System:

When the UPS is powered on, it immediately performs an inspection of the components such as the inverter and the battery as well as the load, so as to detect any problem in time to avoid causing any negligence or loss.

Tower And Rack Mount Available:

The tower-designed models occupy the minimum footprint. And the rack mount models are ideal for rack-optimized servers.

Modular Design:

Titan 1-3KVA is the modular design UPS. There are many small modular boards on the Power Board. They are Fan module, Charger module, Power Supply module, DC-DC module, PFC module and PWM Driver module etc. The modular design would help technicians easily to maintain and repair the UPS and the product quality will be more reliable.

DSP Technology:

Titan 6K/10K adopts DSP technology. DSP is applied to replace bulky transformers, relays and mechanical bypass switches with smaller, more intelligent functional equivalents. DSP implementations also facilitate other design benefits, including increased power efficiency and increased power density - smaller product footprint with less weight.

Two-step Charging System:

Two steps external charger boards are applying to the Titan 6-10KVA S models. The intelligent two-step charger will help to reduce the charging time than the cheaper constant voltage charger. N+X Parallel Redundancy and

Capacity Expansion:

Titan 6K/10K provides the capacity expansion which is capable to parallel up to 3 UPS systems, this system can be connected in parallel to realize output power sharing and power redundancy. In case one unit fails or be shut down for maintenance, the power is still operating without any interrupting to supply the load. Then the total load will be automatically transferred to the remaining units.

Technical specifications

MODEL			TITAN-1K	TITAN-1KS*	TITAN-2K	TITAN-2KS*	TITAN-3K	TITAN-3KS*
CAPACITY	VA/W		1000VA/700W		2000VA/1400W		3000VA/2100W	
INPUT	Voltage Range		Base on load percentage (100%-80% / 80%-70% / 70%-60% / 60%-0%)					
		Line Low Transfer	160VAC/140VAC/120VAC/110VAC± 5VAC					
		Line Low Comeback	175VAC± 5VAC					
		Line Low Transfer	300VAC± 5VAC					
		Line Low Comeback	285VAC± 5VAC					
	Frequency Range		46Hz ~ 54Hz					
	Phase		Single phase with ground					
	Power Factor		≥ 0.95					
OUTPUT	Voltage		220VAC/230VAC/240VAC					
	Voltage Regulation		± 2%					
	Frepency (Synchronized Range)		46~54Hz					
	Frepency (Battery Mode)		50 ± 0.2 Hz					
	Current Crest Ratio		3:1					
	Harmonic Distortion	Tower Case	<3% THD (Linear Load) <6% THD (Non-Linear Load)		<3% THD (Linear Load) <6% THD (Non-Linear Load)			
		Rack Case	≤ 4% THD (Linear Load) ≤ 7% THD (Non-Linear Load)					
	Output Waveform		Pure Sinewave					
EFFICIENCY	To AC Mode		85%		85%		88%	
	To Battery Mode		83%		83%		83%	
BATTERY	Tower Case	Battery Type	12V/7.2Ah	Depending on the capacity of external batteries	12V/7.2Ah	Depending on the capacity of external batteries	12V/7.2Ah	Depending on the capacity of external batteries
		Numbers of Batteries	3		8		8	
		Backup Time (Full Load)	>5 minutes		>9 minutes		>5 minutes	
		Recharge Time	5 hours to 90%		5 hours to 90%		5 hours to 90%	
		Charging Current (Max.)	1.0A	7A	1.0A	9.6A	1.0A	9.6A
		Charging Voltage	41.1Vdc ± 0.6V		110Vdc ± 0.4V			
	Rack Case	Battery Type	12V/7.2Ah	Depending on the capacity of external batteries	12V/7.2Ah	Depending on the capacity of external batteries	12V/7.2Ah	Depending on the capacity of external batteries
		Numbers of Bateriaes	3		8		8	
		Backup Time (Full Load)	>5 minutes		>9 minutes		>5 minutes	
		Charging Current (Max.)	1.0A		7A		1.0A	
		Charging Voltage	41.1Vdc ± 0.6V		110Vdc ± 0.4V			
	TRANSFER TIME	AC to DC		Zero				
Inverter to Bypass		2.5ms (Typical)						
INDICATOR	Status		Load Level / Battery Level / Battery Mode / AC Mode / Bypass Mode / Fault					
AUDIBLE ALARM	Battery Mode		Sounding every 4 seconds					
	Low Battery		Sounding every second					
	Overload		Sounding twice every second					
	Fault		Continuously Sounding					
DINENSION	Tower Case (DxWxH)mm		400x145x220		460x192x340			
	Rack Case (DxWxH)mm	Rack UPS	482.6x450x87 (w. battery)		482.6x450x87			
		Battery Pack	482.6x450x87		482.6x450x87			
WEIGHT	Tower Case (kgs)		14 kgs	7 kgs	34.5 kgs	15 kgs	35.5 kgs	16 kgs
	Rack Case (kgs)		16.3 kgs (w. battery)		10.3 kgs	11.5 kgs	11.2 kgs	12.3 kgs
ENVIRONMENT	Operating Environment		0-40° C					
	Relative Humidity		20-90% (NON-CONDENSING)					
	Noise Level		<45dB @ 1 Meter		<50dB @ 1 Meter			
INTERFACE	Smart RS-232		Software supports Windows 98/NT/2000/XP/2003, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX, and MAC					
	SNMP (option)		Power management from SNMP manager and web browser					

* Product specifications are subject to change without further notice * S Series represent extended backup models

Technical specifications

MODEL			TITAN-6K		TITAN-6KS*		TITAN-10K		TITAN-10KS*		
CAPACITY	VA/W		6000VA/4200W				10000VA/7000W				
INPUT	Voltage Range										
		Line Low Transfer	176 ±3% VAC								
		Line Low Comeback	185 ± 3% VAC								
		Line Low Transfer	276 ± 3% VAC								
		Line Low Comeback	266 ± 3% VAC								
	Frequency Range		46Hz ~ 54Hz								
	Phase		Single phase with ground								
	Power Factor		≥ 0.98								
OUTPUT	Voltage		220VAC/230VAC/240VAC								
	Voltage Regulation		± 1%								
	Frepency (Synchronized Range)		46~54Hz								
	Frepency (Battery Mode)		50Hz ± 0.05Hz								
	Current Crest Ratio		3:1								
	Harmonic Distortion	Tower Case	≤ 2% THD (Linear Load) ≤ 6% THD (Non-Linear Load)								
		Rack Case	≤ 4% THD (Linear Load) ≤ 7% THD (Non-Linear Load)	N/A							
	Output Waveform		Pure Sinewave								
EFFICIENCY	To AC Mode		88%								
	To Battery Mode										
	BATTERY	Tower Case	Battery Type	12V/7.2Ah	Depending on the capacity of external batteries	12V/9Ah		Depending on the capacity of external batteries			
Numbers of Batteries			20	20							
Backup Time (Full Load)			8 minutes	5 minutes							
Recharge Time			7 hours to 90%	8 hours to 90%							
Charging Current (Max.)			2A	4.2A	2A	4.2A					
Charging Voltage			274Vdc ± 1%								
Rack Case		Battery Type	12V/7.2Ah	N/A							
		Numbers of Bateriaes	20								
		Backup Time (Full Load)	>8 minutes								
		Charging Current (Max.)	2A								
		Charging Voltage	274Vdc ± 0.5V								
TRANSFER TIME		AC to DC		Zero							
		Inverter to Bypass		Zero							
INDICATOR	Status		Load Level / Battery Level / Battery Mode / AC Mode / Bypass Mode / Fault								
AUDIBLE ALARM	Battery Mode		Sounding every 4 seconds								
	Low Battery		Sounding every second								
	Overload		Sounding twice every second								
	Fault		Continuously Sounding								
DINENSION	Tower Case (DxWxH)mm		570x260x717								
	Rack Case (DxWxH)mm	Rack UPS	600x482.6x132	N/A							
		Battery Pack	600x482.6x132								
WEIGHT	Tower Case (kgs)		90 kgs	35 kgs	93 kgs		38 kgs				
	Rack Case (kgs)		18.3 kgs	N/A							
ENVIRONMENT	Operating Environment		0-40° C								
	Relative Humidity		20-90% (NON-CONDENSING)								
	Noise Level		<55dB @ 1 Meter								
INTERFACE	Smart RS-232		Software supports Windows 98/NT/2000/XP/2003, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX, and MAC								
	SNMP (option)		Power management from SNMP manager and web browser								

* Product specifications are subject to change without further notice * S Series represent extended backup models